

POL/43-15-6-2/13

Causes of Forged Crossing Cracks in Forgings of High Speed Steels

ing, provided that forging is accomplished exactly according to the rules. The lower density of material around the axis of a piece has to be considered the main cause. Pieces of steel smelted at high temperatures (where the material has a better ability to absorb gases), and of a big proportion between the height and the diameter, will have a greater inclination to crack than pieces smelted under normal conditions and of high quality steel. The results of these investigations at the foundry "Elektrostal'" were formulated as follows: a. The proportion between the diameter and the height of a forged piece should be decreased; b. During processing the temperature should be decreased as far as possible; c. The speed of smelting should be decreased. If the above points are complied with, advantageous conditions of crystallization are gained, whereby the proportion between cooling off from the top downward, to that from the sidings toward the middle is changed. There are 23 photographs, 14 diagrams and 16 references, 5 of which are German, 5 Soviet, and 6 Polish.

Card 4/4

ABRAMSKI, Marian inz.

Cooling of steel products after hot working. Wiad hut 16 no.1:
3-10 Ja '60.

ABRAMSKI, Marian inż.

Causes of hammer piston rod cracking. Wiad hut 16 no.5:138-
144 My '60.

P/043/61/000/004/001/001
D001/D101

AUTHOR: Abramski, Marian, Engineer

TITLE: Forge-shop rail manipulators

PERIODICAL: Wiadomości górnico-hutnicze, no. 4, 1961, 106-112

TEXT: This is an instructive article describing several typical arrangements of forging shops in which such elements as furnaces, forging presses, turn-tables and other auxiliary machines are placed in relation to various types of rail manipulators. Basic types of rail manipulators are listed in Table I.

① Typ manipulatora i krótka charakterystyka	② Nośność, t	③ Szybkość jazdy mostu, m/min	④ Szybkość jazdy wózka, m/min	⑤ Liczba obrotów wózka na min	⑥ Szybkość obrotu ra- mienia wokół własnej osi, obr/min	⑦ Szybkość podnoszenia ramienia równoległe do jego osi, m/min	⑧ Szybkość podnoszenia ramienia ze zmianą ką- ta nachylenia do linii poziomej, m/min	⑨ Kąt nachylenia ramie- nia w dół (w górę), stopn.
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Forge-shop rail manipulators

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Table I. Basic parameters of rail manipulators

Typ I. Mostowy szerokotorowy bez obrotu ramienia wokół osi pionowej	3+10	50	30+20	—	10+8	0,8+1,3	3,0	—
Typ II. Mostowy szerokotorowy z obrotem ramienia wokół osi pionowej	5+30	50	30+20	3	10+8	1,1+1,3	3,0	—
Typ III. Wózkowy bez obrotu ramienia wokół osi pionowej	5+75	—	do 30	—	10+3,5	1,3+0,8	3,0	15/5
Typ IV. Wózkowy z obrotem ramienia wokół osi pionowej	do 30	—	23+31	3+4	10+8	1,1+1,3	3,0	15/5
Typ V. Mostowy z obrotem mostu po okrągłych szynach	2+5	szybkość obrotu 3,5	45	—	20	—	7,5	15/5

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Forge-shop rail manipulators

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Legend:

1. - Type of manipulator and its brief characteristics
 - a. Type I. Broad gage bridge-manipulator with jib not turning about its vertical axis
 - b. Type II. Broad gage bridge-manipulator with jib turning about vertical axis
 - c. Type III. Truck-type manipulator with non-turning jib
 - d. Type IV. Truck-type manipulator with jib turning about its vertical axis
 - e. Type V. Bridge-type manipulator swiveling on circular rails
2. - Load carrying capacity, tons
 - a. up to 30
3. - Bridge speed, m/min
 - a. swivel speed
4. - Truck speed, m/min
 - a. up to 30
5. - Number of truck's revolutions per min

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Forge-shop rail manipulators

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6. - Jib's revolving speed about its own axis, rev/min
7. - Jib's lifting time parallel to its axis, m/min
8. - Jib's lifting time, with change of its angle of inclination in relation to the horizontal line, m/min
9. - Jib's angle of inclination down (or up) in degrees

All manipulators described in the article are built by the following Western firms: Adamson-Alliance (England), Alliance Machine (USA), Dango und Dienenthal (German Federal Republic), Hydraulik (German Federal Republic), Demag (German Federal Republic), Kendall Contracting Inc. (USA), Welman Engineering Co (USA). The first Polish-built rail manipulator of 1-ton carrying capacity was put into operation in June 1960 at the Huta 1-Maja (Metallurgical Plant). There are 4 tables, 16 figures and 4 Soviet bloc references, of which 1 is Polish and 3 are Soviet.

Card 4/4

ABRAMSKI, Marian, inz.

Railless forging manipulators. Wiad hut 17 no.9:264-271 S '61.

P/043/62/000/010/001/001
D001/D101

AUTHOR: Abramski, Marian, Engineer

TITLE: Forged-and-rolled rings

PERIODICAL: Wiadomości hutnicze, no. 10, 1962, 302-309

TEXT: The article describes in general terms consecutive operations in the manufacture of rings by a combined forging and rolling method. Steel or nonferrous metal rings are formed from blooms or ingots. Blooms or ingots are cut into flat pieces, heated to a forging temperature, upsetted, and pierced by a 10-ton hammer or a 3,000-4,000 ton press. With the piercing mandril removed, the blanks are straightened by light forging. The internal diameter of the ring is enlarged on a two-horn anvil. After interoperational soaking, the ring is finally shaped on a horizontal ring-shaping mill at a water pressure of 150 atmospheres and on a radial ring press operated hydraulically at a pressure of more than 100 atmospheres. There are 16 figures.

Card 1/1

ABRAMSKI, Marian, inz.

Special type manipulators. Wiad hutn 18 no.4:114-117
Ap '62.

ABRAMSKI, Marian, inz.

Detection and prevention of forging-cross cracks in products
forged from high-speed cutting steels. Wiad hut 15 no.7/8:238-245
Jl-Ag '99.

ABRAMSKI, Marian, inz.

Causes of forging-cross cracks in products forged from high-speed cutting steels. Wlad hut 15 no.6:178-188 Je '59.

ABRAMSKI, Marian, inz.

Forging manipulators. Wiad hut 16 no.7/8:235-239 J1-Ag '60.

ABRAMSKI, Marian, inz.

Forged-rolled rings. Wiad hut 18 no.10:302-309 0 '62.

ABRAMSKI, Marian, inz.

Equipping hammering and pressing shops with their basic tools and their influence on the productivity. Wiad hut 18 no.12:377-383 D '62.

ABRAMSKI, Marian, inz.

Rolling of rings. Wiad hut 19 no.7/8:195-204 J1/Lg '63.

SUWALSKI, Ludomir, prof. dr inż.; ABRAMOWICZ, Marian, mgr inż., asystent

Protection of electroresistant sensing devices. Przegl mech 23
no.15:428-430 10 Ag '64

1. Department of Ferroconcrete Constructions, Technical University,
Warsaw. Head of Department: Prof. Suwalski.

ABRAMOWICZ, Marian, mgr inż. (Warszawa)

Ninth Conference of the Polish Academy of Sciences and the
Polish Association of Building Engineers and Technicians in
Krynica. Przegl budowl i bud mieszk 36 no.2:109-110 F'64.

ABRAMSKI, Marlon, inz.

Rolling of small rings. Wied hut 21 no. 1.16 16 Ja 195.

ABRAMS'KIY, Yu.

YANKO, Mikola Timofiyovich; ABRAMS'KIY, Yu., redaktor; KLIMENKO, I.,
tekhnichnyi redaktor

[Homemade visual aids for teaching geography and ways of using
them] Samorobni naichni posibnyky z geografii ta roabota z nymy.
Kyiv, Derzh.uchbovo-pedagog.vyd-vo "Radiants'ka shkola," 1957. 95 p.
(Teaching--Aids and devices) (MLRA 10:6)
(Geography--Study and teaching)

ABRAMSON, A. A.

ABRAHAMSON, A. A.

Prospects of railway transport in Russia. (Russian Economist, April 1921, n. 612-623).
A survey of railroad conditions in 1920 and the outlook for their improvement.

DIC: PRR

SO: SOVIET TRANSPORTATION AND COMMUNICATIONS, A BIBLIOGRAPHY, Library of Congress
Reference Department, Washington, 1952, Unclassified.

ABRAMSON, A. V.

ABRAMSON, A. V. "Selection of Types of Hand Dusters," Itozi Nauchno-Issledovatel'skikh Rabot Vsesoiuznogo Instituta Zashchity Rodnii za 1935 Goda, 1936,

pp. 363-373 423.92 L541

SO: SRA, SI 90-53, 15 D^uc. 1953

ABRAMSON, A. V.

ABRAMSON, A. V. "Tests of New Types of Dusting Apparatus for Cotton,"

Itogi Nauchno-Issledovatel'skikh Rabot Vsesoiuznogo Instituta Zashchity Rastenii
za 1936 Goda, pt2 1937, pp. 288-291. 423.92 L541

SO: SIRA, SI 90-53, 15 D.c. 1953

ABRAMSON, B.Ya.

Age of continental sediments in the conjugated zone of fold areas of the Stanovik-Dzugdzhur and Mongolia-Okhotsk geosyncline (upper Amur Valley). Sov. geol. 7 no.8:156-158 Ag '64.

(MIRA 17:10)

1. Vsesoyuznyy neftyanoy nauchno-issledovatel'skiy geologorazvedochnyy institut.

ABRAMSON, B.Ya. [deceased]

Stratigraphy of Upper Cretaceous volcanic sedimentary formations
in the northern Sikhote-Alin' Range and lower Amur Valley. Sov.
geol. 7 no.10:152-154 O '64.

(MIRA 17:11)

1. Vsesoyuznyy neftyanoy nauchno-issledovatel'skiy geologorazvedoch-
nyy institut.

YERMOLAYEVA, T.A.; BORODINA, M.L.; ABRAMSON, D.L.; SMETANKINA, T.A.;
ANUFRIYEVA, N.S.; POTAPOVA, M.P.

Modifying rutile titanium dioxide for the improvement of its
physical and technological properties. Lakokras.mat.i kh
prim. no.1:20-25 '62. (MIRA 15:4)

(Rutile)

S/081/62/000/024/030/052
B119/B186

AUTHORS: Yermolayeva, T. A., Borodina, M. L., Abramson, D. L.,
Smetankina, T. A., Anufriyeva, N. S., Potapova, M. P.

TITLE: Modification of titanium dioxide in the rutile form to
improve its physical and technical properties

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 24(II), 1962, 903,
abstract 24P625 (Lakokrasochn. materialy i ikh primeneniye,
no.1, 1962, 20-25)

TEXT: Investigations were made to find modifying substances (MS) for
improving the physical and technical properties of titanium dioxide in
the rutile modification (rutile) (I), to develop a method of applying
MS to the surface of I, and to study the effect of MS on the properties
of I. It was found that the effect of MS was much greater when they were
mixed with I by additional wet grinding in a ball mill or in an apparatus
with stirrer (mixing machine) (adapted for further investigations) than
in the dry procedure. I consisting of 70% particles $< 1\mu$, or I in a
finely disperse form (with $\sim 85\%$ particles $< 1\mu$) which settles in small

Card 1/2

Modification of titanium dioxide ...

S/081/62/000/024/030/052
B119/B186

amounts in the filter bags of a Loesch mill, is used for the experiments. MS, like amines of the aliphatic series and other organic compounds, affect only slightly the color intensity, the covering power, and the resistance to air (of I) but reduce the absorption power of moisture by a factor of 1.5 to 2 as well as the settling of I in the finished enamels, and improve the resistance to abrasion. The best results were obtained with 1% addition of alkamon oc -2 (OS-2) (PA), of quaternary ammonium salts of diethyl aminomethyl glycol ethers of higher fat alcohols. An optimum method of modifying I was developed. Solutions of aluminum, silicon, and phosphorus compounds were successively poured, stirring all the time, into an aqueous suspension of disperse I containing 200 g/liter of TiO_2 . The washing out is followed by treatment with PA, filtration, drying of the residue, and fine grinding in a jet mill. The best results are obtained by introduction of 2.8% aluminum phosphate with subsequent application of 0.5% PA. The color intensity of I increases by 8-20%, the photochemical activity decreases to $1/3 - 1/4$ (literally: by the 3-4 fold), the resistance to abrasion is improved. The resistance of the coat to chalking is doubled. [Abstracter's note: Complete translation.]

Card 2/2

S/276/63/000/002/031/052
A052/A126

AUTHORS: Amfiteatrova, T.A., Yermolayeva, T.A., Abramson, D.L., and Yakubovich, S.V.

TITLE: Effect of titanium dioxide modification on rheological properties of "tixotropic" (tikсотроpnыkh) enamels

PERIODICAL: Referativnyy zhurnal, Tekhnologiya mashinostroyeniya, no.2 , 1963, 110, abstract 2B6C2 (Lakokrasochn. materialy i ikh primeneniye, no. 4, 1962, 30-32)

TEXT: The results of investigations of rheological properties of "tixotropic" enamels produced by using modified titanium dioxide samples are reported. It is shown that, if titanium dioxide is treated with inorganic aluminum, phosphorus and silicon compounds, the strength of the enamel structure increases as compared with the enamel containing untreated pigments; surface active substances (alkamone OC-2(OS-2)) at 0.1, 0.5 and 1% by weight destroy the structure of enamel and reduce considerably its strength; if titanium dioxide is treated successively with aluminum phosphate and alkamone OS-2, the strength of the structure of enamel decreases

Card 1/2

Effect of titanium dioxide...

S/276/63/000/002/031/052
A052/A126

in the same way as if treated with alkamone alone; titanium dioxide samples of anatase and rutile modification treated with aluminum phosphate, aluminum hydroxide and silicic acid can be recommended for the production of "tixotropic" enamels; titanium dioxide modified by alkamone OS-2 cannot be used for the production of said enamels.

(Abstracter's note: Complete translation.)

Card 2/2

YERMOLAYEVA, T.A.; ABRAMSON, D.L.; DOROFYEVA, N.M.

Effect of the modification of rutile titanium dioxide on its
wettability by linseed oil and water. Lakokras.mat.1 ikh prim.

no.6:20-23 '62.

(MIRA 16:1)

(Titanium oxides--Testing) (Surface-active agents)

YERMOLAYEVA, T.A.; ABRAMSON, D.L.; ANUFRIYEVA, N.S.

Obtaining a modification of anatase titanium dioxide for
improving its physical and technical properties. *Lakokras.mat.*
1 ikh prim. no.1:36-38 '63. (MIRA 16:2)
(Titanium oxides)

YERMOGLAYEVA, T.A.; ABRAMSON, D.I.; PRYTKOVA, G.A.

Interaction of cationic surface-active agents with rutile titanium dioxide. *Lakokras.mat. i ikh prim.* no.2:23-26 '64. (MIRA 17:4)

L 1876-66 EWP(e)/EPA(s)-2/EWT(m)/EPF(c)/EWP(1)/EWP(b)/EPA(w)-2/ETC(m) IJP(c)
ACCESSION NR: AP5022508 JD/WH/WH UR/0303/65/000/004/0013/0018
667.629:667.622.118.2

AUTHOR: Yermolayeva, T. A.; Abramson, D. L.; Smetankina, T. A.; Anufriyeva, N.S.

TITLE: Modification of rutile titanium dioxide by compounds of aluminum, silicon, and titanium for the purpose of improving its physicochemical properties

SOURCE: Lakokrasochnyye materialy i ikh primeneniye, no. 4, 1965, 13-18

TOPIC TAGS: titanium dioxide, aluminum oxide, silicon compound, titanium compound, orthophosphoric acid, silicon dioxide, aluminum compound

ABSTRACT: The object of the study was to perfect a technique elaborated earlier for modifying rutile by depositing it on the surface of basic aluminum phosphate, and also to find new effective methods of modification. The following more effective and more economic methods were developed: (a) modification by basic aluminum phosphate and silicic acid, resulting in a reduced consumption and loss of orthophosphoric acid; (b) modification by phosphates of titanium and aluminum; in this case the loss of orthophosphoric acid is reduced by 5-8%; (c) modification by hydrate compounds of aluminum and silicon, precipitated by carbonation without the use of orthophosphoric acid. The modification of rutile by these
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L 1876-66

ACCESSION NR: AP5022508

techniques results in an increase in strength and resistance to chalking and a decrease in pigment precipitation during storage of enamels, and can be recommended for pigments designed for various weather-resistant enamels. "G. A. Prytkova and M. P. Potapova participated in the experimental work." 7

Orig. art. has: 7 tables. 44

ASSOCIATION: None

SUBMITTED: 00

ENCL: 00

SUB CODE: IC, G-C

NO REF SOV: 003

OTHER: 000

Card 2/2

ABRAMSON, D. S.

Abramson, D. S., and Pavlov, A. V. URAL BAUXITES AND THEIR WORKING BY THE BAYER METHOD. *Legkie Metal*, No. 6, 8-18 (1933) --A detailed discussion is given of the bauxite deposits of the Urals and their application after a partial removal of SiO_2 and Fe_2O_3 according to the Bayer method.

<p>ABRAMSON, D.S.</p>										<p>PROCESSES AND PROPERTIES INDEX</p>									
<p>The Crystallization by Electrodeposition of Zinc on the Surface of Some Metals. D.S. Abramson (Izvest. Akad. Nauk S.S.S.R. (Bull. Acad. Sci. U.S.S.R.) 1938, (Chim.) (5/6), 1197-1210.-(In Russian.) The crystallization of zinc on the surface of iron, copper, aluminium, and freshly deposited zinc from solutions of pure zinc sulphate with and without the additions of</p>																			
<p>$Al_2(SO_4)_3$, $MgSO_4$, Na_2SO_4, H_2BO_3, gum arabic, maltose, and isamyl alcohol was studied. Simultaneously with a study of the changes in potential of the cathode, microscopic and X-ray investigations of the deposits were carried out. An increase in the overpotential in the initial stage of the process of deposition on cathodes consisting of metals other than zinc is connected with difficulties in the formation of nuclei. Deposits obtained from electrolytes with added $Al_2(SO_4)_3$ have an orientation of the basal plane parallel to the cathode, while the prismatic or pyramid face is oriented parallel to the cathode in deposits from the pure electrolyte and from the electrolytes with H_2BO_3, Na_2SO_4, and $MgSO_4$ additions. In the former, X-ray data indicate an orientation of the crystals with the [100] axis perpendicular to the cathode, and in the second case with the [111] direction perpendicular to the cathode.—N. A.</p>																			
<p>ASACSLA METALLURGICAL LITERATURE CLASSIFICATION</p>																			

ABRAMSON, D.S.

16

Standard Methods of Determining the Thickness of Zinc Coatings. D. S. Abramson. (Zavodskaya Laboratoriya, 1940, No. 4, pp. 390-398). (In Russian). The author presents a critical review of methods described in the literature for the determination of the average and local thickness of zinc coatings. In addition some of the author's results obtained in checking Preece's immersion method, which is regarded as unavailing, and the dropping and constant-flow methods of determining local thickness, are given. The constant-flow method is regarded as the most reliable. The apparatus used for the method is described. The solution employed contained 70 g. per litre of ammonium nitrate, 70 ml. per litre of 1N hydrochloric acid and 7 g. per litre of copper sulphate. This solution can be employed for coatings irrespective of the method of preparing the surface of the base metal. The accuracy of the method is $\pm 10\%$. For works use the volumetric constant-flow method is simpler and will give an accuracy of $\pm 10\%$.

ASB 514 METALLURGICAL LITERATURE CLASSIFICATION

ABRAMSON, D.

M

Preparation of Closely Adherent Metallic Coatings on Insulating Surfaces.
D. S. Abramson (*Prom. Organ. Khim.*, 1940, 7, 627-629; *Brd. Chem. Abs.*, 1941, [B.T], 111).—[In Russian.] 400 c.c. of 9% NaOH, 800 c.c. of reducing solution (100 gm. of sucrose in 250 c.c. of water are heated with 0.5 c.c. of HNO₃ to the development of an amber colour, and water is added to 1250 c.c.), and 80 c.c. of formalin are added to 1 litre of solution containing CuSO₄, 30 gm., glycerol 80 c.c., and conc. aq. NH₃, 20 c.c., and the article (galalith, glass, &c.) is immersed in the solution. After a coating of copper has formed, the desired design is applied with cellulose lacquer, 15% HNO₃ is applied to remove uncovered copper, the article washed, the lacquer removed by means of BuOAc, and the required metal coating deposited electrolytically.

23

ABRAMSON, D.S.

M

Standard Methods of Controlling the Thickness of Nickel Plate. D. S. Abramson (*Zavod. Lab. (Works' Lab.)*, 1940, 8, 534-539; C. Abs., 1940, 24, 7182). -(In Russian.) The most accurate means of determining the thickness of nickel plate is by the stream method with a solution containing ferric chloride, copper sulphate, and acetic acid. The results do not depend on the porosity of the coating and the passivity of the surface. On the basis of the volume of solution used the error may reach 17-18%. The drop method is applicable to freshly deposited coatings.

ASTM A56 DETALLURGICAL LITERATURE CLASSIFICATION

OPEN MATERIALS INDEX

COLLECTIONS

ABRAMSON, D. CA

Control of coating thickness in wire galvanizing. D. S. Abramson. *Korrosiya i Korroz. Nrl* 7, No. 2, 34-6 (1941); *Chem. Zentr.* 1943, 1, 1323; cf. C. A. 34, 7207^a. - The thickness should be controlled by the Bauer method; one immersion corresponds to a thickness of 7 μ . The thickness of the coating on a wire with a diam. greater than 1 mm. can be determined by the jet method. Iver Igelrud

ATL 35.4 METALLURGICAL LITERATURE CLASSIFICATION

ABRAMSON, D.S.

Quality Control of Electrodeposited Coatings. D. S. Abramson (*Treaty*
Heavy Conf. Korros Metallor, 1943, 2, 180-191; *Brit. Chem. Abn.*, 1944, (C),
103). A review.

ASD SLA METALLURGICAL LITERATURE CLASSIFICATION

ABRAMSON, D. S. and S. I. ORLOVA

Kontrol' elektrolitov i kachestva gal'vanopokrytii. Moskva, Metallurgizdat,
1944. 212 p. illus. diags.

[Control of electrolytes and quality of electroplating.]

DLC: TS670.A54

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library
of Congress, 1953.

ABRAMSON, D. S. Cand. Tech. Sci.

Dissertation: "Investigation and Development of the Methods for Quality Control of Electroplating." Central Sci Res Inst of Technology and Machine Building
-"TsNIITMASH." 9 Jun 47

SO: Vechernyaya Moskva, Jun, 1947 (Project #17836)

ABRAMSON, D. S. and S. I. ORLOVA

Kontrol' elektrolitov i kachestva gal'vanopokrytii. Izd. 2., ispr. i dopoln. Moskva, Mashgiz, 1950. 239 p. diags.

Control of electrolytes and quality of electroplating.

DLC: TS670.A54 1950

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of Congress, 1953.

ABRAMSON, D. S.

Regulation of electrolytes and the quality of
galvanization Izd. 2., ispr. 1
Moskva, Gos. nauchno-tekhn. izd-vo
 mashinostroit. lit-ry, 1950. 239 p.
(50-34388)

TS670.A54 1950

1. Electroplating. 2. Electrolytes. I.
Orlova, S. I.

ABRAMSON, D.S., kand. tekhn. nauk, red.; LIPSITSEYN, R.A., kand. tekhn. nauk, red.; LOSIKOV, B.V., prof., doktor tekhn. nauk, red.; YEVSTAF'YEVA, N.P., red. izd-va; EL'KIND, V.D., tekhn. red.

[Preventing the corrosion of internal combustion engines and gas-turbine units] Bor'ba s korroziei dvigatelei vnutrennego sgoraniia i gazoturbinykh ustanovok. Moskva, Mashgiz, 1962. 295 p. (MIRA 15:4)

1. Vsesoyuznyy sovet nauchno-tekhnicheskikh obshchestv.
(Corrosion and anti-corrosives)
(Gas and oil engines) (Gas turbines)

ABRAMSON, F. L.

Abramson, F. L. - "On the morphological characteristics of tuberculosis of the lungs as treated by streptomycin", Trudy Akad. med. nauk SSSR, Vol. II, 1949, p. 189-209.

SO: U-4329, 19 August 53, (Letopis 'Zhurnal 'nykh Statey, No. 21, 1949).

ABRAMSON, F.L., kandidat meditsinskikh nauk

Dynamics of some nervous changes in experimental tuberculosis.
Probl. tub. no.6:66-70 N-D '54. (MLRA 8:1)

1. Iz patomorfologicheskogo otdela (zav.-prof. V.I.Puzik)
Instituta tuberculeza Akademii med. nauk SSSR (dir. Z.A.Lebedeva)
(TUBERCULOSIS, experimental
nerves, peripheral changes)
(NERVES, PERIPHERAL, in various diseases
tuberc., experimental, changes)

ABRAMSON, F.L., kand.med.nauk

Analysis of sectioned material from those who have died from
various forms of tuberculosis in Yakutsk during 1951 to 1954.
Vop. epid. i klin. tub. 5:57-77 '58. (MIRA 14:12)
(YAKUTSK--TUBERCULOSIS--MORTALITY)

ABRAMSON, F.L., kand.med.nauk; PERTSOVSKIY, A.I., kand.med.nauk

Materials on the pathogenesis of tuberculous lymphadenitis.

Vop. epid. i klin. tub. 5:156-191 '58.

(MIRA 14:12)

(LYMPHATICS—TUBERCULOSIS)

1.25 1000, 2.42
KOSTOLICH, I.B., engineer.

Compartment cement feeders. Strol. 1 dor. mashinostr. 2 no. 33-34
Ag 157. (MIRA 10:9)

(Mining machinery)

23

6 P

Methods of utilizing sunflower-seed hulls. V. S. Sadikov, I. D. Abramov, A. D. Rutshak and K. S. Ilichova. *Schiffen, tralad. Mochm. Fachangsmat. Nuk. Gossmitelind.* (U. S. S. R.) 3, 304 (1961).

Sunflower-seed hulls are potentially valuable because (oil mill waste about 300,000 tons per year) and rich in useful materials. Potash can be made from the hulls, but it is more profitable to make furfural and cellulose by hydrolysis. The resulting cellulose (about 40% cellulose, Cu no. 0.5 I. A, ash only 0.1%) is excellent for making viscose or for further hydrolysis to fermentable sugars from which alc. can be made.

Julian F. Smith

ABRAMSON, I. D.

Pl

Gramophone disks - V. V. Malyshev and I. D. Abramson, Russ. 47,445, June 30, 1936. A cardboard lining is covered with a resin lacquer, the lacquer layer is dusted with powd. blood albumin, a coating of resin lacquer contg. a plasticizer is applied, and the record is finally dried and pressed in the usual manner.

ASAC 114 DETAIL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS		PROCESSES AND PROPERTIES INDEX	
ABRAMSON, I. D.		Articles from albuminous masses R. S. Ilman and I. D. Abramson. Russ. 51,111, May 31, 1937. The plasticized mass is ripened by keeping it in a closed container for a number of hrs. at normal temp. so as to prevent the action of water.	
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ASB-31A METALLURGICAL LITERATURE CLASSIFICATION			
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1ST AND 2ND EDITION										3RD AND 4TH EDITION									
PROCESSING AND PROPERTIES INDEX																			
<p>ABRAMSON, I. D.</p> <p>120</p> <p>13</p> <p>Molding powders. V. V. Malyshev, I. D. Abramson, and M. L. Bokhan. Russ 61,858, Sept. 30, 1937. Natural or artificial plastic materials, their solns. or emulsions, with or without plasticizers, fillers and pigments, are atomized in a current of hot air or other gas.</p>																			
<p>ASB. SLA. METALLURGICAL LITERATURE CLASSIFICATION</p> <p>FROM 174,871,000</p> <p>RECORD #1</p> <p>RECORD MAP ONLY ONE</p> <p>REVISION ONE</p> <p>RECORD ONE ONLY ONE</p>																			

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A. ABRAMSON, I.D.										PROCESSING AND PROPERTIES INDEX									
Modern technic of preparation of molding powders.										1. J. Abramson. <i>Org. Chem. Ind.</i> (U. S. S. R.) 5, 181-4 (1958).—A preliminary communication. C. Blanc									
COMMON ELEMENTS										COMMON VARIANTS INDEX									
MATERIALS INDEX										E. E. : 1									
ASB-5LA METALLURGICAL LITERATURE CLASSIFICATION										E. E. : 1									
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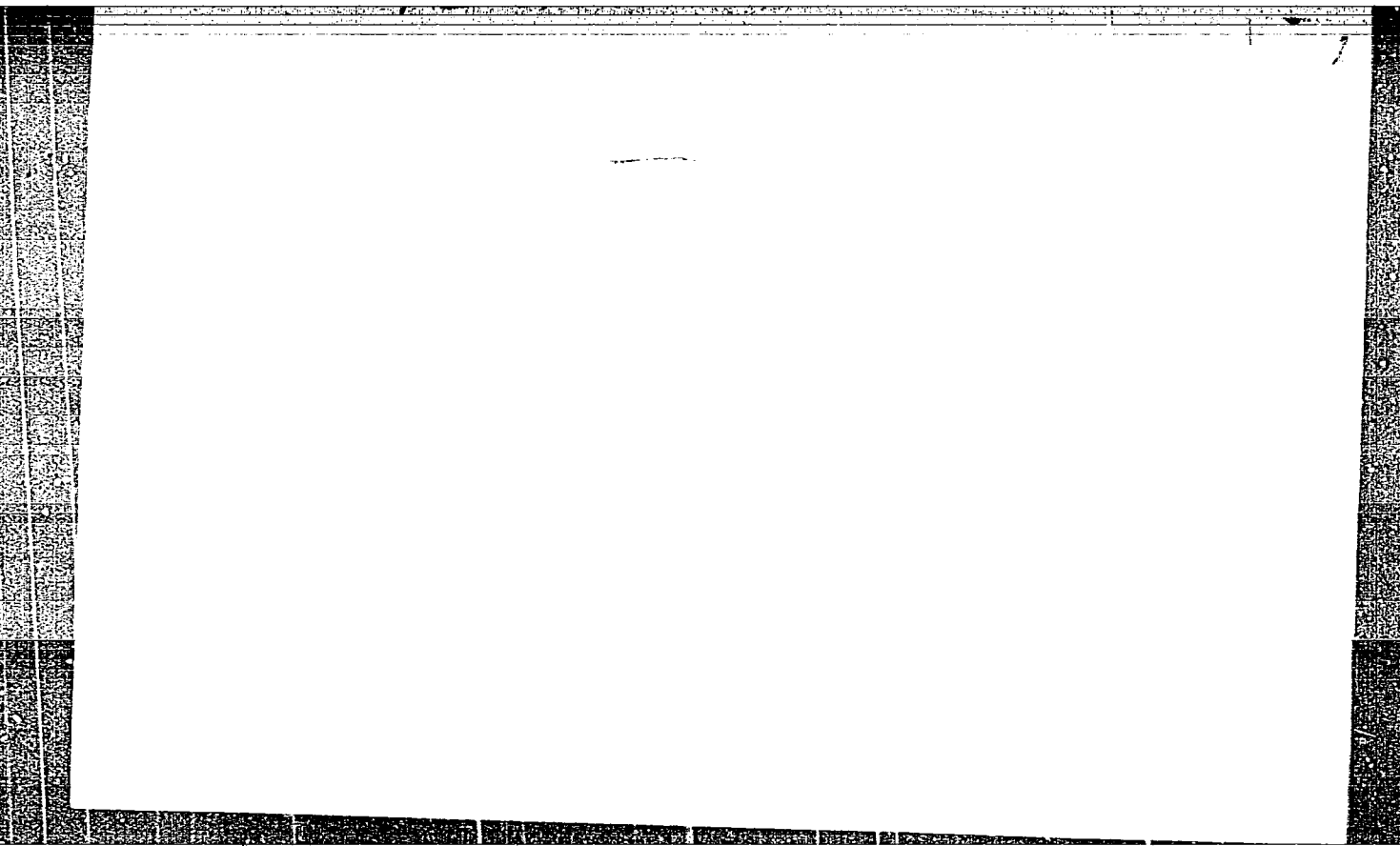
ABRAMSON, I. D.

13.6

1080. ORGANIC PLASTIFIERS IN THE PRODUCTION OF NEW CERAMIC MATERIALS -- I. D. Abramson (*Comptes Rendus (Doklady) Acad. Sci. U.S.S.R.*, 83, 338, 1948). Refractory oxides have not been widely used in the U.S.S.R., despite their valuable properties, because they do not yield readily to normal processes of shaping. The energy of wetting of minerals by liquids depends on the molecular nature of the surfaces, and the setting and spreading of the liquid is influenced by surface micro-relief. Adsorbed films alter the properties of particle surfaces and increase the property of cohesion, reducing frictional forces which act between particles of loose material. Many organic substances forming similar films have been found suitable as activators for non-plastic materials, and according to the nature of the mineral powder they may be hydrophilic, as in the case of proteins, or hydrophobic, for example, resins or high-molecular hydrocarbons of the paraffin series. The mineral material needs stabilizing by heat treatment before addition of the plasticiser. The author claims that by his method products of complex shape have been made from alumina and thoria. Special agents were used, capable of sucking away the liquid fractions formed by the plasticiser, to prevent rupture of the wall of the article when the products of decomposition of the organic substances through heat are given off; certain loose materials, chemically inert under heat treatment, proved to be satisfactory. Shrinkage of sintered corundum test-pieces cast from organic slip was 17.3%; this reduction of shrinkage in firing with organic plasticisers was due to previous structural compacting of the alumina by firing, to transform it from γ - to α -form. Uncompacted alumina with the same plasticiser yielded shrinkage values similar to those found by other research workers.

"APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000100220009-7



APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R000100220009-7"

5(3)

SOV/80-32-4-8/47

AUTHORS: Abramson, I.D., Berk, V.A., Kornblit, I.I.

TITLE: The Preparation of Corundum Base Acid-Resistant Materials by
the Addition of Silicon-Organic Polymers
(polucheniye kislotoupornykh materialov na osnove korunda s
dobavkoy kremniyorganicheskikh polimerov)

PERIODICAL: Zhurnal prikladnoy khimii, 1959, Vol 32, Nr 4, pp 750-756 (USSR)

ABSTRACT: Acid-resistant products may be manufactured from white electric corundum with the addition of a silicon-organic polymer, i.e., ethylsilicate 40, which has been hydrolyzed in a water-alcohol solution to a SiO_2 content of 21.9%. During pyrolysis the organic part of the compound volatilizes and the silica polymer coats the grains of the principal material [Ref 1, 2]. Electric corundum of the following types is used in the experiments: 100, 180, 320, and the micropowder M-7. The acid-resistance is tested by heating to 300°C and cooling in sulfuric acid in three cycles of 72 hours each. The samples burnt at $1,250^\circ\text{C}$ have the highest mechanical resistance at a SiO_2 content of 3%. The temperature of $1,250^\circ\text{C}$ is too low for such high-melting materials as electric corundum. At $1,600^\circ\text{C}$, shrinking of the samples is observed which reaches the highest

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SOV/80-32-4-8/47

The Preparation of Glazed Acid-Resistant Materials by the
Addition of Silicon-Organic Polymers

value in the fine powder M-7. The acid-resistance is the highest in samples burnt at 1,600°C (Table 7). The lowest solubility have the samples manufactured on the base of coarsely grained corundum. Dense acid-resistant materials without filtering properties are obtained at SiO₂ additions of 1.5 g/m² to 5-7 g/m².

There are 8 tables, 6 graphs, and 4 Soviet references.

ASSOCIATION: Moskovskiy khimiko-tekhnologicheskii institut imeni D.I. Mendeleeva (Moscow Chemical-Technological Institute imeni D.I. Mendeleev)

SUBMITTED: November 12, 1958

Card 2/2

PLATE I BOOK EXPLORATION SOV/4199
Leningrad. Politechnicheskoy Institut

Sovremennyye dostizheniya litsevo proizvodstva: tudy
achivaniya nauchno-tekhnicheskoy konfrontatsii (Recent
Achievements in Founding: Translations of the Scientific
Monographs, 1970. 36 p. Extra all inserted.
4,000 copies printed.

Prof. Ed. I. Yu. A. Nizhnik, Doctor of Technical Sciences,
Sciences, Professor, and L. P. Zhuravskiy, Doctor of Technical
Ed. for literature on Army High School Building (Leningrad
Department, Nakhik): Ye. P. Krasovskiy, Tech. Ed.:
Ye. A. Dugolanskiy, and L. V. Shchegoleva.

FORWARD: This book is intended for the technical personnel
of foundries. It may be used by students of the field.

CONTENTS: This collection of articles discusses problems in
founding processes. Individual articles treat the melting
of metals and their alloys, sedimentation and automation
of casting processes, aspects of the manufacture of steel,
cast iron, and nonferrous metal castings. No particular
are mentioned. References accompany individual articles.

Recent Achievements in Founding (Cont.) SOV/4199

25. Kozlov, I. Ya. Experimental Investigation of the
Mold Filling Process 191
 26. Kozlov, B. A. Materials for Shell Molds 201
 27. ~~Abdullayev, D.~~ Ceramic Cores for Investment Casting
of Heat-Resistant Alloy Hollow Products of Complex
Configuration 205
 28. Kuznetsov, N. P. Temperature Regime in Production of
Shell Molds and Their Strength 212
- V. STEEL CASTINGS
29. Nagibov, A. M. Mechanism of the Formation of Out-
of-Center Ligament in a Steel Ingot 219
 30. Olegov, S. M. Basic Patterns of Crystallization of
High-Alloy Corrosion-Resistant Steels with a Lower
Content of Nickel 222
- Card 6/9

PHASE I BOOK EXPLOITATION

BR
SOV/6447

Abramson, I. D.

Keramika dlya aviatsionnykh izdeliy (Ceramics For Aircraft) Moscow, Oborongiz, 1963. 239 p. 2750 copies printed.

Reviewer: A. I. Avgustinik, Doctor of Technical Sciences, Professor;
Ed.: S. I. Bumshteyn, Engineer; Ed. of Publishing House: S. I. Vinogradskaya; Tech. Ed.: G. M. Kuz'min; Managing Ed.: A. S. Zaymovskaya, Engineer.

PURPOSE: This book is intended for technicians, foremen, and laboratory workers of the aviation, automobile, and tractor industries.

COVERAGE: The author describes the technology of the manufacture of high-alumina products used in the aviation industry. This "sinoksal" or "paraffin" process is also used for other than alumina-base ceramics and in powder metallurgy. The author began

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Ceramics For Aircraft

SOV/6447

his work on the "sinoksal" process in 1940 when he was assigned to develop a new process for manufacturing corundum insulators. In 1953 the process was used to fabricate special ceramic rods and refractory shapes for casting hollow blades for jet engines. The text gives the physicochemical fundamentals of the process. Particular attention is paid to the fabrication of aviation spark plugs and ceramic rods and molds for precision casting of jet turbine blades and other shapes made from refractory metals. The manufacture of refractory products is also mentioned. A considerable portion of the text is devoted to organic plasticizer used in the "sinoksal" process (thermoplastic organic plasticizers Materials used for absorbers are also discussed. Soviet and non-Soviet references are given in footnotes.

TABLE OF CONTENTS [Abridged]:

Preface

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Card 2/3

ABRAMSON, I.D.; AVGUSTINIK, A.I., doktor tekhn. nauk, prof.,
retsenzent; BUMSHTEYN, S.I., inzh., red.; VINOGRADSKAYA,
S.I., red. izd-va; KUZ'MIN, G.M., tekhn. red.

[Ceramics used in the airplane industry] Keramika dlia
aviatsionnykh izdelii. Moskva, Oborongiz, 1963. 239 p.
(MIRA 16:5)

(Airplane industry) (Ceramics)

ABRAMSON, I.G., inzhener.

The use of radioactive rays to control the charging of hoppers and
shaft furnaces. TSement 22 no.5:11-12 S-O '74. (MIRA 10:1)
(Gamma rays--Industrial applications) (Hoppers)
(Furnaces)

ABRAMSON, I.G., referent.

Investigating processes in rotary kilns with the aid of radioactive isotopes (from "Zement - Kalk - Gips" no.4 and no.5 '56).
Abstracted by I.G.Abramson. TSement 22 no.6:29-32 N-D '56.
(Cement industries) (MLBA 10:2)
(Radioisotopes--Industrial applications)

ABRAMSON, I.G., inzhener; MOROZOV, Ye.I., inzhener.

Conference on the use of isotopes in industry and science.
TSement 23 no.3:30-32 My-Je '57. (MIRA 10:7)
(Isotopes--Industrial applications)

25 (5)

SOV/101-59-5-3/11

AUTHORS: Abramson, I. G. and Nemenman, L. Z.

TITLE: A Possible Method of an Uninterrupted Remote Control of the Level of the Slurry in Slurry Tanks

PERIODICAL: Tsement, 1959, Nr 5, pp 6 - 9 (USSR)

ABSTRACT: The authors state that practical use of the above method is an important part of the problem of automation of an enterprise. Such control is indispensable for an exact checking of the consumption of the raw material and the output volume. At present, the measurement of the slurry level is performed mainly by immersing heavy weights into the tanks containing slurry. Such a procedure has many disadvantages. The zavod "Kalugapribor" ("Kalugapribor" Factory) has produced radioactive level-meters, but they are unreliable and not suited for use with a thick medium as slurry. The authors propose a system of an uninterrupted remote control of the level of the slurry, in tanks of any size, using a simple gamma-relay circuit (various types of the device are already used in the industry), with a hydraulic drive. The principle of the

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SOV/101-59-5-3/11

A Possible Method of an Uninterrupted Remote Control of the Level of the Slurry in Slurry Tanks

project consists in an electronic scheme (Figure 1), which acts by means of magnetic pushers upon a regulating sliding valve, operating the hydraulic drive. The regulating process is recorded on the dial indications receiver. The authors conclude that the proposed regulation scheme will increase the productivity standard. There is 1 diagram.

Card 2/2

ABRAMSON, I.G.

~~SECRET~~

PHASE I BOOK EXPLOITATION SOV/5410

Tashkentskaya konferentsiya po mirnomu ispol'zovaniyu atomnoy energii, Tashkent, 1959.

Trudy (Transactions of the Tashkent Conference on the Peaceful Uses of Atomic Energy) v. 2. Tashkent, Izd-vo AN UzSSR, 1960. 449 p. Errata slip inserted. 1,500 copies printed.

Sponsoring Agency: Akademiya nauk Uzbekskoy SSR.

Responsible Ed.: S. V. Starodubtsev, Academician, Academy of Sciences Uzbek SSR. Editorial Board: A. A. Abdullayev, Candidate of Physics and Mathematics; D. H. Abdurazulov, Doctor of Medical Sciences; U. A. Arifov, Academician, Academy of Sciences Uzbek SSR; A. A. Borodulina, Candidate of Biological Sciences; V. N. Ivashev; G. S. Ibramova; A. Ye. Kiv; Ye. M. Lebnayev, Candidate of Physics and Mathematics; A. I. Nikol'yev, Candidate of Medical Sciences; D. Nishanov, Candidate of Chemical Sciences; A. S. Sadykov, Corresponding Member, Academy of Sciences USSR, Academician, Academy of Sciences Uzbek SSR; Yu. N. Talanin,

Card 1/20

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Transactions of the Tashkent (Cont.)

SOV/5410

Candidate of Physics and Mathematics; Ya. Kh. Turakulov, Doctor of Biological Sciences. Ed.: R. I. Khamidov; Tech. Ed.: A. G. Babakhanova.

PURPOSE : The publication is intended for scientific workers and specialists employed in enterprises where radioactive isotopes and nuclear radiation are used for research in chemical, geological, and technological fields.

COVERAGE: This collection of 133 articles represents the second volume of the Transactions of the Tashkent Conference on the Peaceful Uses of Atomic Energy. The individual articles deal with a wide range of problems in the field of nuclear radiation, including: production and chemical analysis of radioactive isotopes; investigation of the kinetics of chemical reactions by means of isotopes; application of spectral analysis for the manufacturing of radioactive preparations; radioactive methods for determining the content of elements in the rocks; and an analysis of methods for obtaining pure substances. Certain

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Transactions of the Tashkent (Cont.)

SOV/5410

instruments used, such as automatic regulators, flowmeters, level gauges, and high-sensitivity gamma-relays, are described. No personalities are mentioned. References follow individual articles.

TABLE OF CONTENTS:

RADIOACTIVE ISOTOPES AND NUCLEAR RADIATION
IN ENGINEERING AND GEOLOGY

Lobanov, Ye. M. [Institut yadernoy fiziki UzSSR - Institute of Nuclear Physics AS UzSSR]. Application of Radioactive Isotopes and Nuclear Radiation in Uzbekistan

7

Tekser, I. M., and V. A. Yanushkovskiy [Institut fiziki AN Latv SSR - Institute of Physics AS Latvian SSR]. Problems of the Typification of Automatic-Control Apparatus Based on the Use of Radioactive Isotopes

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Transactions of the Tashkent (Cont.)

SOV/5410

Pertsovskiy, Ye. S., and N. D. Lerman [Vsesoyuznyy nauchno-issledovatel'skiy institut zerna - All-Union Scientific Research Institute of Grain]. Gamma-Ray Level Gages for Flour Mills and Combined Fodder Plants.

262

Abramoch, I. G., and L. Z. Nemmanan [Gosudarstvennyy institut po proyektirovaniyu predpriyatiy tsementnoy promyshlennosti i nauchno-issledovatel'skiy i eksperimental'nyy rabotam v oblasti proizvodstva tsementa - State Institute for the Design and Planning of Establishments of the Cement Industry and Scientific Research and Experimental Work in the Field of Cement Production]. A Possible Continuous Remote Control of Slime Level in Slime Pits by Means of a Gamma-Relay System

266

Izryumskaya, D. I., R. A. Rezvanov, and V. I. Drynkin [Institute of Geology and Production of Mineral Fuels AS USSR]. Application of Neutron Activation Analysis in Geology

269

Izopovsk, T. A. [Institute of Geology and Production of Mineral Fuels AS USSR]. Neutron Breeder for Activation Analysis
Card 13/20

ABRAMSON, I.G.; BRESLER, B.M.; VASILISHIN, I.P.; KIZNER, A.S.;
MATUSHEVSKIY, T.I.; MEPCDOVSKIY, V.Ya.

Gamma-control of moisture in clay slurry. TSement 31 no. 6:
17-19 N-D '65. (MIRA 18:12)

1. Gosudarstvennyy vsesoyuznyy institut po proyektirovaniyu i
nauchno-issledovatel'skim rabotam tsementnoy promyshlennosti i
Nikolayevskiy tsementno-gornyy kombinat.

ABRAMSON, I.I., red.

[Monomethyl hydrazine; digest of foreign literature]
Monometilgidrazin; obzor zarubezhnoi literatury. Mo-
skva, 1963. 16 p. (MIRA 17:8)

1. Moscow. Tsentral'nyy nauchno-issledovatel'skiy institut
informatsii i tekhniko-ekonomicheskikh issledovaniy po nef-
tyanoy i gazovoy promyshlennosti.

ABRAMSON, I.K. (Moskva)

Processing a one-sided photograph of a meteor of April 21-22, 1949.
Bul. VAGO no.10:62-63 '56. (MLRA 10:3)

1. Moskovskoye otdeleniye Vsesoyuznogo astronomo-geodezicheskogo
obshchestva, meteornyy otdel.
(Meteors--April) (Astronomical photography)

ABRAMSON, I. S.

PA 24T11

USSR/Electricity

Arcs

Spectral Lines

May/June 1947

"Visual and Electrical Investigation of Rapidly Changing Processes in an Activated Arc Operating on AC," I. S. Abramson, S. L. Mandel'shtam, 4 pp

"Iz Ak Nauk SSSR, Ser Fiz" Vol XI, No 3

Article states that recording of the intensity of spectral lines by an oscillograph gives great opportunity for the investigation of the processes in the source of the spectrum. It permits the study of the progress of the processes when applied to a time scale, and aids in determining the cutting power limits of arcs. This article, well illustrated with

24T11

USSR/Electricity (Contd)

May/June 1947

graphs, was submitted at the Physics Institute of P. N. Lebedev, Academy of Sciences of the USSR.

24T11

ABRAMSON, I.S.

CA

Investigation of the activated alternating-current arc.
I. S. Abramson and N. S. Sventitskii (Lebedev Inst. Phys., Moscow). *J. Tech. Phys.* (U.S.S.R.) 17, 43-52 (1947) (in Russian).—Oscillograms were taken of the potential across and current through the gap of the Sventitskii-activated a.-c. arc. In arc-type operation (series inductance $L = 370 \mu\text{H}$, blocking capacitance $C = 0.25 \mu\text{F}$), the potential drop was approx. const. and equal to 40 v. The max. current was 10 amp. For spark-type operation the corresponding values were observed on a single spark which was used to trigger the sweep of an oscilloscope with a long-persistence screen. With $L = 70 \mu\text{H}$ and $C = 8 \mu\text{F}$, the potential drop was 20 v. and the max. current 75 amp. The spark discharge lasted about 80 microsec. The latter discharge was nonoscillatory, but oscillatory trains lasting 6 microsec. and having peak currents of 200 amp. were obtained by using $L = 10 \mu\text{H}$ and $C = 8 \mu\text{F}$. Current i in the spark path was measured by observing the width of a single spark of known amperage at a given time. Values of $0.3\text{--}2.0 \times 10^4 \text{ amp./sq. cm.}$ were obtained for spark operation, and $5.6\text{--}7.5 \times 10^4 \text{ amp./sq. cm.}$ for arc operation. Changes in L affect the intensity ratios of Cu spark lines to Cu arc lines much more strongly than do changes in C , but increases in C noticeably diminish the intensities of NiII lines.
Cyrus Feldman

ASB-11A DETAILWORKAL LITERATURE CLASSIFICATION

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CA

ABRAMSON, I.S.

2

The passage of spark discharge. I. S. Abramson, N. M. Gergelikov, S. I. Iushkina, and S. L. Mahilevskiy. *Zhur. Eksp. Teor. Fiz.* 17, 802-7 (1947) -- The observed velocity of development of the path of a spark discharge is of the order of 1-5 km/sec. which, when considered in conjunction with well-known emitted audible shock wave, makes it probable that the passage of the spark is of an explosive character. Expts. conducted in various gases and in different geometric contours with Tepler's method and the method of reflection development confirms the shock mechanism of the development of the path of the discharge. Tepler photography shows the presence of a sharp boundary "skin" for the passage of the discharge. H. K. L.

Physics Inst. im. Lebedev, AN, SSSR

ABRAMSON, I. S.

PA 53/49T31

USSR/Electricity
Spark Generator

Jul/Aug 48

"Circuit of an AC Activated Arc Generator for Obtaining Spark Operation," I. S. Abramson, 1 p

"Iz Ak Nauk SSSR, Ser Fiz" Vol XII, No 4

To obtain spark operation, it is usually necessary to reduce inductance in the discharge circuit, which reduces stability of ignition and burning of the discharge. This limits use of AC activated arc generator in exciting spark spectra. Suggests a new circuit which secures stable

53/49T31

USSR/Electricity (Contd)

Jul/Aug 48

burning of the discharge with an inductance of less than 3-5 microhenries in the discharge circuit with a spark interval 2-3 mm long.

53/49T31

A. ABRAMSON, I.S.		PRECISE AND PROPERTIES INDEX																																																																																																									
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<p>Increase of Stability of the Activated Alternating-Current Arc Under Spark Conditions for Spectro-analytical Purposes. (In Russian) I. S. Abramson and O. B. Falkova. Zhurnal Tekhnicheskoi Fiziki (Journal of Technical Physics), v. 19, May 1949, p. 611-615. Describes three circuits for improving the above stability.</p>																																																																																																											
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ABRAMSON, I. S., SHELKOV, L. S. and TROFIMOVA, V. A.

"The Modern Cathode-Ray Oscilloscope", Part I, Construction and Operation of the Cathode-Ray Oscilloscope, Izdatel'stvo Akademii Nauk SSSR, 192 pp, 1960.

ABRAMSON, I. S.

PA 160T36

USSR/Engineering - Generator, Arc
Spectrum Analysis

Apr 50

"Performance of an AC-Activated Arc Generator at Low-Current Intensities," I. S. Abramson, Lab of Commission on Spectroscopy, Acad Sci USSR, 4 pp

"Zavod Lab" Vol XVI, No 4

Provision for stability in operation of generator at small arc currents is very essential for many spectrum-analysis problems connected with low-melting alloys, with plating investigation, etc. Special investigation conducted for revealing causes of unstable generator performance and for developing corrective measures.

~~160T36~~

160T36

ABRAMSON, I.S., redaktor; SHKLOV, L.S. [translator]; TROFIKOVA, V.A.,
[translator] GESSEN, L. redaktor; DRONOV, A. ' tekhnicheskij
redaktor; PECHNIKOVA, N. tekhnicheskij redaktor.

[Modern cathode ray oscillograph; a collection of articles]
Sovremenniy katodnyy ostsillograf; sbornik statei. Moskva,
Izd-vo inostrannoi lit-ry. Pt. 1 [Installation and operation
of a cathode oscillograph. Translated from the English]
Ustroistvo i rabota katodnogo ostsillografa. Per. s angliiskogo
L.S.Shelkova, i V.A. Trofimovoi. Pod red. I.S.Abramsona. Izd-vo
2-e, ispr. i dop. 1951 241 p. (MLRA 8:10)
(Cathode ray tubes)

SHELKOV, L.S., [translator]; ~~ABRAMSON, I.S.~~, redaktor; GESSEN, L., redaktor; GERASIMOVA, Ye., tekhnicheskly redaktor

[Modern cathode ray oscillograph; collection of articles] Sovremennyi katodnyi ostsillograf; sbornik statei. Moskva, Izd-vo inostrannoi lit-ry. Pt.2. [Uses of cathode ray oscillographs in physics research. Translation and abstracts by L.S.Shelkov] Primeneniia katodnogo ostsillografa v fizicheskikh issledovaniakh. Perevod i referaty L.S.Shelkova. Pod red. I.S.Abramsona. 1951. 236 p. (MLRA 8:3)

(Cathode ray oscillograph) (Physics--Research)

15CT40

ABRAMSON, I. S.

USSR/Electricity - Discharge, Spark

Apr 51

"Oscillographic Investigation of Spark Discharge,"
I. S. Abramson, N. M. Gegechkori, Phys Inst imeni
Lebedev, Acad Sci USSR

"Zhur Eksper i Teoret Fiz" Vol XXI, No 4, pp 484-492

Results of oscillographic recording of voltage and
current of spark discharge during intermediate
state. Based on these data, ratio of energy in-
flow velocity to circuit parameters: self-induction,
capacity and potential, is detd.

LC

180740

ABRAMSON, I. S.

USSR/ Physics - Instruments

Card 1/1 Pub. 43 - 32/97

Authors : Abramson, I. S. ; Sterin, Kh. E. ; and Mogilevskiy, A. N.

Title : Photoelectric methods of recording spectra and the installation at the laboratory of the Commission on Spectroscopy

Periodical : Izv. AN SSSR, Ser. fiz. 18/2, 264-265, Mar-Apr 1954

Abstract : A photoelectric arrangement for the registration of combined diffusion spectra which operates on the AC-current amplification principle is described. Registration of the spectrum is realized by means of a cathode ray tube, the vertically deflecting plates of which are fed the voltage of the measuring signal and the horizontal plates are fed a voltage proportional to the angle of deflection of the spectrograph prisms. The ISP-51 spectrograph is the major element of the photoelectric installation. Automatic amplification control is employed for the purpose of eliminating the effect of light source (mercury lamp) intensity fluctuations.

Institution :

Submitted :

Abramson, I. S.

USSR/Physics - Spectral analysis

Card 1/1

Pub. 43 - 4/62

Authors : Abramson, I. S., and Mandel'shtam, S. L.

Title : Certain problems of photoelectric spectral analysis methods

Periodical : Izv. AN SSSR. Ser. fiz. 18/6, 635-643, Nov-Dec 1954

Abstract : Certain problems connected with the photoelectric spectral analysis methods were discussed during the 9-th All-Union Conference on Spectroscopy. The major advantages of the photoelectric analysis methods are listed as follows: considerable speed-up of the analysis process, and its automatization and greater measurement accuracy. The basic elements of a photoelectric spectrum registration system - source of spectrum excitation, spectral apparatus, photo-electric radiation receivers, photo-current registration units, etc. are described. The various scientific fields with great prospects for spectroscopy are listed. Diagrams, graphs.

Institution : Acad. of Sc., USSR, The P. N. Lebedev Phys. Inst. and the Commission on Spectroscopy

Submitted :

455.71.01-1.1
MALYAVKIN, L.P. ; ABRAMSON, I.S.

Use of dynamic condenser electrometers for photoelectric recording of spectra. Izv. AN SSSR. Ser. fiz. 19 no.1:40-42 Ja-F '55.

(MIRA 8:9)

1. Komissiya po spektroskopii Akademii nauk SSSR i Fizicheskiy institut imeni P.N.Lobedeva Akademii nauk SSSR
(Spectrum analysis) (Spectrometer)

ABRAMSON, I.S.; MOGILEVSKIY, A.N.

Some characteristics of the performance of evolved-spectrum
photoelectric apparatus. Izv. AN SSSR. Ser. fiz. 19 no.1:
49-52 Ja-F '55. (MIRA 8:9)

1. Komissiya po spektroskopii pri Otdelenii fiziko-matematicheskikh nauk Akademii nauk SSSR
(Spectrum analysis) (Spectrometer)

L'YUIS, I. [Lewis, I.A.D.],; UELS, F. [Wells, F.H.],; DULIN, V.N., [translator],;
~~ABRAMSON, I.S.~~, red.; MOGILEVSKIY, A.N., red.; TELESNIN, N.L., red.;
SMIRNOVA, N.I., tekhn. red.

[Millimicrosecond pulse techniques] Millimikrosekundnaya impul'snaya
tekhnika. Moskva, Izd-vo inostr. lit-ry, 1956. 367 p. [Translated
from the English]. (MIRA 11:12)

(Pulse techniques (Electronics))
(Microwaves)

MALYAVKIN, L.P.; MOGILEVSKIY, A.N.; ABRAMSON, I.S.

Increasing the stability of photomultipliers used for the
photoelectric registration of spectra. Fiz.sbor. no.4:129-
133 '58. (MIRA 12:5)

1. Fizicheskiy institut AN SSSR Komissiya po spektroskopii
AN SSSR.

(Photoelectric multipliers) (Spectrum analysis)

ABRAMSON, I.S.; MOGILEVSKIY, A.N.

Generator of a high-voltage spark discharge with electronic control. Fiz.sbor. no.4:173-175 '58. (MIRA 12:5)

1. Komissiya po spektroskopii AN SSSR.
(Electric spark)

AUTHORS: Abramson, I.S., Malyavkin, L.P., 32-24-6-14/44
Mogilevskiy, A.N., Slavnyy, V.A.

TITLE: Investigation of the Operation of the Photoelectric
Stylometer FES -1 (Issledovaniye raboty fotoelektricheskogo
stilometra tipa FES -1)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol 24, Nr 6, pp 695-702 (USSR)

ABSTRACT: The above-mentioned stylometer is used for quantitative emission
spectral analysis, in which elements are determined one after an-
other. The optical scheme of the device is similar to that of
the spectrograph ISP -51 in which any spectral line can be sep-
arated individually, whereas, on the other hand, the sensitivity
of the photoelements in the red spectral range is insufficient.
The method of measuring the intensity of the spectral lines to be
analyzed, which method is used also in other systems following a
suggestion made by L.M. Ivantsov and S.M. Rayskiy (Ref 5), is
applied also in this case. The principle of measuring is described,
and it is said that this principle is being applied in a new de-
vice of foreign construction. Selection of the average value of
exposure is carried out in three different ways: by calibration

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Investigation of the Operation of the Photoelectric
Stylometer FES 1

32-24-6-14/44

separators, by a combination of the three existing light filters, or by the contacts, according to the measuring scale. The electric part of the device is described and a schematic plan showing the measuring order is given; among other things it is mentioned that the input resistance should not be less than $10^{14} - 10^{15}$ ohms; that the total range of measurable voltages is subdivided into six parts, and that on the light-source generator GEU a thyatron of relatively low voltage was used in contrast to what was done in other cases, and that a wide area of arc- and spark discharge regimes is obtained. When dealing with the accuracy of the device, the error limit is investigated; it was mentioned that the potentiometers EPV 01 or EPV 0.5 belong to the class 0.5, that the measuring scheme is linear, and that errors are below 0.5%. Moreover, the photometrical error limit was investigated in the case of both a stable and a geometrically unstable light source; results are given. For the determination of analytical errors the influence exercised by the reproducibility of the shape and the quality of the surfaces of the electrodes upon measuring errors were investigated as sources of errors and a number of alloying elements (mainly tungsten in steels) was determined by using the W 4659 Å line. Measurements carried out with the steels P-9 and P-18 disclosed a reproducibility error of 1.2 and 0.8%

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Investigation of the Operation of the Photoelectric
Stylometer FES -1

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respectively. The results obtained are compared in a table with those according to Gauss, and errors were found to occur at random. With respect to the application of an internal standard it is stated that a not separated light beam can be used and that in this way better reproducibility is obtained. Besides tungsten, also chromium, manganese, titanium and vanadium were determined, and an analytical error of 1.0-2.0% was found. Determination of silicon in steels presented a number of difficulties, so that e.g. the spectral line of silicon had to be derived according to the iron line for guidance; the linear distance changed proportionally with the temperature. The following factors are mentioned as influencing the amount of the errors: 1.) The formation of charges as a result of deformation of a cable (changes of temperature). 2.) The occurrence of a low EMF in connection with the commutation of the current supply of the electrometer. 3.) The entering of light into the apparatus through the observation microscope. 4.) The binding of the capacity of the current of the two integrating condensers. These faults ought to be remedied; for the first-mentioned case the method of graphiting developed by

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